

## **REMARKS**

### **Claims 1-3, 12-15, 23-26, 29 and 32-33 are rejected under 35 USC 102e as being anticipated by Nakaya (US 7006571 B1, hereafter referred to as “6571”).**

In the Office action of 09/26/2007, in response to the Applicant's remark, page 10, lines 5 20-26, stating that Nakaya does not disclose using a single global motion vector for the whole macroblock when doing global motion compensation, but rather that the prior art synthesizes a predicted image using different motion vectors for each pixel, the Examiner stated, “While Nakaya does disclose synthesizing a predicted image using different motion vectors for each pixel, Nakaya also discloses adapting the prior art algorithm to regular global motion and 10 calculating a global motion vector for a single representative point in a macroblock (Nakaya (US 7006571): column 11, line 55, through column 12, line 14), with the corner points used in the calculation of global motion vectors corresponding to corner points of a macroblock (Nakaya (US 7006571) Fig. 1: column 2, lines 63-67). Therefore the Examiner maintains the rejection of claim 1 under Nakaya (US 7006571) with respect to this limitation.” Similar 15 responses to arguments are provided by the Examiner for independent claims 13 and 24.

The applicant, however, respectfully disagrees with the Examiner's remarks. In fact, Nakaya teaches in column 11, line 55 through column 12, line 14, “a representative point is first found to a precision of  $1/k$  pixels using the motion vectors of the corners of the image” (emphasis added). Applicant points out that “corners of the image” is not equivalent to 20 corners of the macroblock as was stated by the Examiner. The Examiner therefore incorrectly stated that Nakaya teaches, “a global motion vector for a single representative point in a macroblock”. The part underlined is actually not true. Nakaya clearly states utilizing the four corners of the image. Applicant points out that Nakaya does not teach performing global motion compensation according to a global motion vector on a per-macroblock basis, as is 25 claimed in claim 1. Further reference to Nakaya in Fig. 1: column 2, lines 63-67 states, “.. as the global motion compensation shown in FIG. 1, and the “motion vectors at the corners of the image” are transformed into “motion vectors of the lattice points” (emphasis added). In

FIG.1, Nakaya also clearly shows that the four corners of the image 101 is utilized, not macroblocks within the image. For this reason, applicant again respectfully asserts that Nakaya does not teach at least the following limitation of claim 1:

5       “if the current macroblock is encoded using global motion compensation, the interpolation unit performs the interpolation operations according to a global motion vector on a per-macroblock basis.” (emphasis added)

10      For at least the reason that Nakaya teaches determining a representative motion vector based on the four corners of the image, not the macroblock, applicant asserts that claim 1 should be found allowable with respect to the cited references. Similar arguments also apply to independent claims 13 and 24. Reconsideration of claims 1, 13, and 24 is respectfully requested. Claims 2-12, 13-23, and 25-34 are dependent claims and should be found allowable for at least the same reasons.

15      **Claim 4 and 34 are rejected under 35 USC 103a as being unpatentable over Nakaya (US 7006571 B1, hereafter referred to as “’6571”).**

20      As previously described, claims 4 and 34 are dependent upon claims 1 and 24, respectively, which are believed allowable by the applicant for at least the reasons provided above. Therefore, claims 4 and 34 should also be found allowable for at least the same reasons. Reconsideration of claims 4 and 34 is respectfully requested.

25      **Claims 5-8, 16-19, and 30-31 are rejected under 35 USC 103a as being unpatentable over Nakaya (US 7006571 B1, hereafter referred to as “’6571”) as applied to claim 1-4, 12-15, 23-26 and 29 above, and further in view of Nakaya et al. (US 20010050957 A1, hereafter referred to as “’50957”).**

As previously described, claims 5-8, 16-19, and 30-31 are dependent upon claims 1, 13, and 24, respectively, which are believed allowable by the applicant for at least the reasons provided above. Therefore, claims 5-8, 16-19, and 30-31 should also be found allowable for

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at least the same reasons. Reconsideration of claims 5-8, 16-19, and 30-31 is respectfully requested.

**Claims 9, 20, and 27-28 are rejected under 35 USC 103a as being unpatentable over Nakaya (US 7006571 B1, hereafter referred to as “6571”) and Nakaya et al. (US 20010050957 A1, hereafter referred to as “50957”) as applied to claims 1-8, 12-19, 23-26 and 29-31 above, and further in view of Srinivasan (US 20030202607 A1).**

As previously described, claims 9, 20, and 27-28 are dependent upon claims 1, 13, and 24, respectively, which are believed allowable by the applicant for at least the reasons provided above. Therefore, claims 9, 20, and 27-28 should also be found allowable for at least the same reasons. Reconsideration of claims 9, 20, and 27-28 is respectfully requested.

**Claims 10-11 and 21-22 are rejected under 35 USC 103a as being unpatentable over Nakaya (US 7006571 B1, hereafter referred to as “6571”) as applied to claim 1-4, 12-15, 23-26 and 29 above, and further in view of Hagiwara (US 20040223550 A1).**

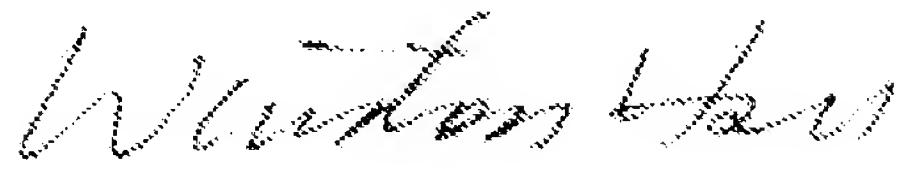
As previously described, claims 10-11 and 21-22 are dependent upon claims 1, 13, and 24, respectively, which are believed allowable by the applicant for at least the reasons provided above. Therefore, claims 10-11 and 21-22 should also be found allowable for at least the same reasons. Reconsideration of claims 10-11 and 21-22 is respectfully requested.

**Conclusion:**

Thus, all pending claims are submitted to be in condition for allowance with respect to the cited art for at least the reasons presented above. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone conversation, or if the Examiner has any ideas or suggestions for further advancing the prosecution of this case.

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Sincerely yours,



Date: 12.26.2007

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10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)